



National Science Foundation

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Public Meeting on the Draft Environmental Impact Statement

Green Bank Science Center
2017 November 30, 5:00—8:30 pm



Public Meeting Overview

- Introduction of team members and description of materials and transcript
- Science background
- Purpose of the meeting
- Draft Environmental Impact Statement (DEIS) summary
- Public comments



Introductions

Representative	Role
National Science Foundation: Federal Agency	
<i>Edward Ajhar</i>	Program Director for Green Bank Obs.
<i>Elizabeth Pentecost</i>	Project Management Administrator
<i>Matthew Viau</i>	Program Specialist
<i>Caroline Blanco</i>	Assistant General Counsel
<i>Kristen Hamilton</i>	Environmental Compliance Officer
<i>Karen Pearce</i>	Senior Legislative Affairs Specialist
<i>Sarah Bates</i>	Public Affairs Specialist
CH2M HILL: Environmental Contractor	
<i>Michelle Rau</i>	Project Manager
<i>Valerie Ross</i>	Senior Technologist

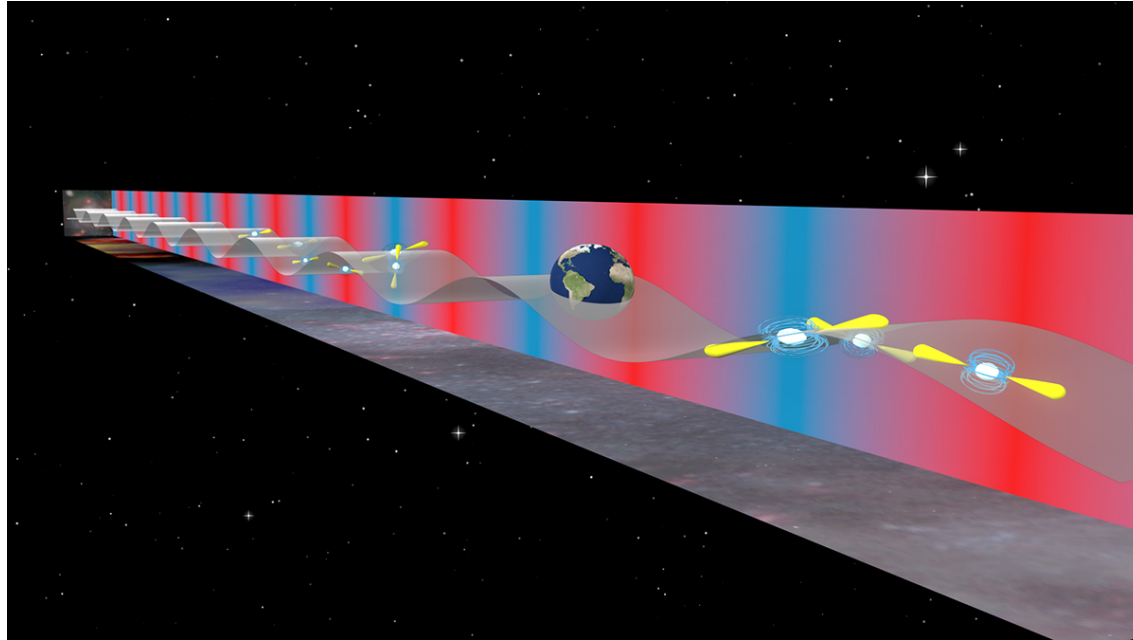


Materials

- Fact sheet and information boards
- This presentation, electronic versions of the fact sheet and information boards will be posted on the web following the public meetings at: www.nsf.gov/ast (click on Environmental Studies)



Science at GBO: Pulsars



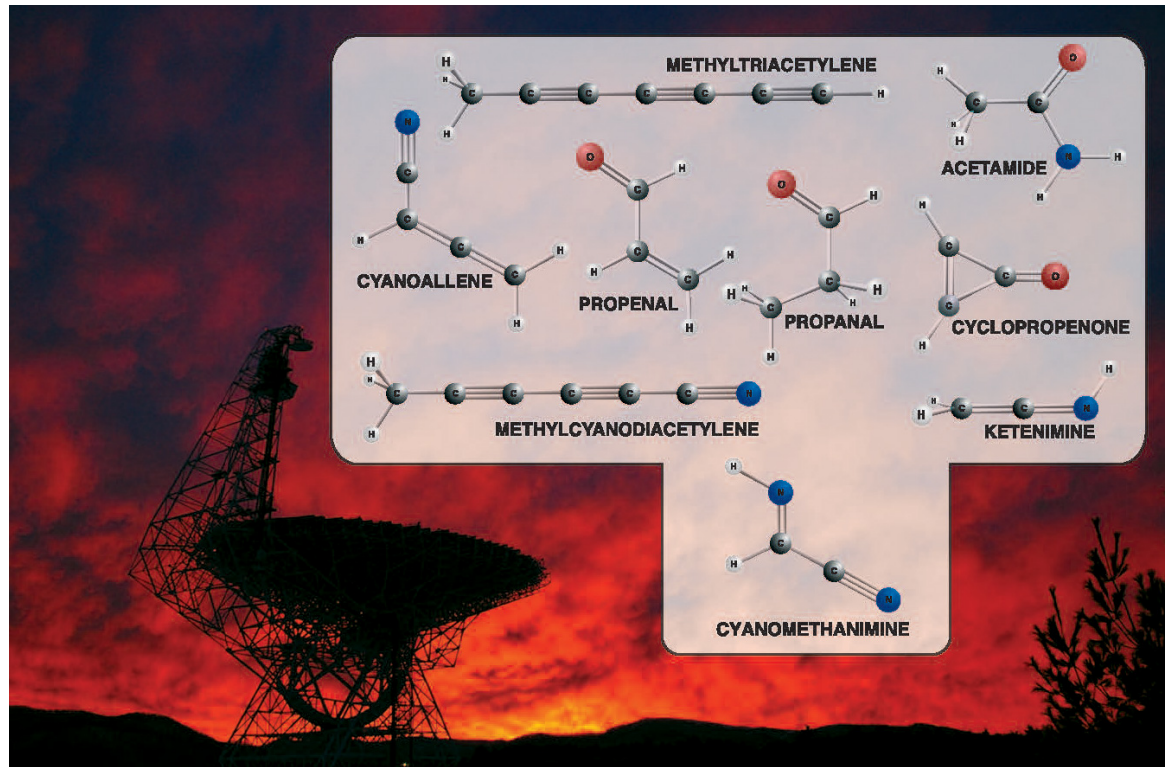
Credit :NRAO/AUI/NSF

- Rapidly rotating neutron stars
- Incredibly accurate clocks!
- Pulsar timing can detect gravitational waves
- GBT important facility for NANOGrav consortium



Science at GBO: Astrochemistry

- Origins of life
- Emerging field
- Leader in new detections of organic molecules in the Universe
- Part of puzzle of star and planet formation



Credit: Bill Saxton, NRAO/AUI/NSF



Science at GBO: Search for Life

- Breakthrough Listen:
about 20% of GBT time
- Survey of a million closest stars
- Sensitive enough to detect aircraft radar from 1000 nearest stars



Credit: Jiuguang Wang



Purpose of This Meeting

- In compliance with the National Environmental Policy Act (NEPA), a Draft Environmental Impact Statement (DEIS) has been prepared to evaluate potential environmental impacts of proposed operational changes due to funding constraints for the Green Bank Observatory.
- The purpose of this meeting is to allow for public comments on the DEIS, which will help inform the Final EIS,
- And to allow public input on historic properties under Section 106 of the National Historic Preservation Act.



Purpose of the Proposed Action

- The purpose of the Proposed Action is to substantially reduce NSF's contribution to the funding of Green Bank Observatory (GBO).



Need for the Proposed Action

- NSF is responsible for maintaining a balanced research portfolio, and the scientific community, through reviews and surveys, has indicated that the scientific capabilities of GBO are lower in priority than other scientific capabilities that NSF funds.



Panel/Committee Reports

- A review of the NSF Astronomical Sciences portfolio was completed in 2012: *Advancing Astronomy in the Coming Decade: Opportunities and Challenges*
- Regarding the Green Bank Telescope (GBT), the 2012 review recommended divestment and stated the following:

“The GBT is the world’s most sensitive single-dish radio telescope at wavelengths shorter than 10 cm; however, its capabilities are not as critical to *NWNH* [astronomy and astrophysics decadal survey] science goals as the higher-ranked facilities.”



Panel/Committee Reports

- The 2016 March 15 report of the *Astronomy and Astrophysics Advisory Committee* stated the following:
“Strong efforts by NSF for facility divestment should continue as fast as is practical. Efforts to explore partnerships, interagency cooperation and private resources to maintain some access to facilities for the US community that may mitigate the loss of open access should continue. Transferring the cost of operating a facility outside of the NSF/AST budget is preferable to complete loss of a capability from the suite of capabilities used by US researchers.”



Panel/Committee Reports

- In August 2016, the *National Academies of Sciences, Engineering, and Medicine* published their *Midterm Assessment* of the 2010 decadal survey and reaffirmed the 2012 Portfolio Review's recommendations for divestment of these AST facilities:

“The NSF should proceed with divestment from ground-based facilities that have a lower scientific impact, implementing the recommendations of the NSF Portfolio Review, which is essential to sustaining the scientific vitality of the U.S. ground-based astronomy program as new facilities come into operation.”



Alternatives Evaluated in the DEIS

Preferred Alternative

- A. Collaboration with interested parties for continued science- and education-focused operations with reduced NSF funding**
- B. Collaboration with interested parties for operation as a technology and education park
- C. Mothballing of facilities
- D. Demolition and site restoration
- No-Action: Continued NSF investment for science-focused operations



Alternatives Evaluated in the DEIS

Note that for each proposed Action Alternative NSF has identified which buildings and infrastructure **could be** retained, demolished, mothballed, or safe-abandoned (see Table 2.6-1 in the DEIS).

Importantly, these alternatives do not mandate the demolition of any buildings; this level of detail in the DEIS is helpful in ensuring that the environmental impact analysis adequately addresses each proposed Action Alternative.



Public Scoping

- Public scoping conducted 2016 October 19 to November 25.
 - Scoping meetings and 30-day (minimum) comment period
- Comments incorporated in the DEIS



DEIS Contents

- Executive Summary
- Purpose and Need
- Description of Proposed Action and Alternatives
- Affected Environment
- Environmental Consequences
- Notifications, Public Involvement, and Consulted Parties



DEIS Resource Areas Considered

- Biological Resources
- Cultural Resources
- Visual Resources
- Geology and Soils
- Water Resources
- Hazardous Materials
- Solid Waste
- Health and Safety
- Noise
- Traffic and Transportation
- Socioeconomics
- Environmental Justice



Section 106 of the National Historic Preservation Act

- The Section 106 consultation process requires federal agencies to consult with interested parties and the State Historic Preservation Officer regarding potential effects of their proposed actions on nationally significant historic properties. There are four basic steps:
 1. Initiate Section 106 consultation
 2. Identify Area of Potential Effects (APE) and nationally-significant historic properties within the APE
 3. Assess whether there are adverse effects
 4. Resolve any adverse effects



DEIS Availability

- www.nsf.gov/AST (“AST Facilities-Environmental Reviews”, “Green Bank Observatory”)
- Local libraries:
 - Green Bank Public Library, 5683 Potomac Highlands Trail, Green Bank, WV 24944
 - Durbin Community Library, 4361 Staunton Parkersburg Turnpike, Durbin, WV 26264



How to submit comments on the DEIS

- Provide verbal comments today
- Submit written comments today
- Mail or email comments to NSF by January 8, 2018

envcomp-AST-greenbank@nsf.gov

Ms. Elizabeth Pentecost
Division of Astronomical Sciences
National Science Foundation
2415 Eisenhower Avenue
Alexandria, VA 22314



Target Dates & Opportunities to Comment



National Historic Preservation Act Compliance

Endangered Species Act Compliance (completed March 2017)

** The viability of the Preferred Alternative is dependent on the availability of qualified collaborations determined through a parallel NSF process.*



Record of Decision

Discussion of all the factors, including

- Science priorities
- Feasibility
- Environmental considerations and mitigation
- Budget



What's Next?

- 60-day public comment period (through Jan 8th)
- NSF to address comments in a Final EIS
- NSF to issue Record of Decision selecting which Alternative to implement



Your verbal comments are now welcome.

- One speaker at a time; may require time limit.
- Please state & spell your name for the court reporter, and speak slowly and clearly.
- Direct your comments/questions to the contents of the DEIS; NSF will not address comments at this time. They will be addressed in the Final EIS.
- Will take a planned break.



Thank you for your
participation!



Information and materials are posted at

www.nsf.gov/AST

NSF Point of Contact:

Ms. Elizabeth Pentecost, (703) 292-4907, epenteco@nsf.gov.



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